

23767

S/190/61/003/006/010/019

B110/B208

Reaction of butyl ...

Si(OC<sub>4</sub>H<sub>9</sub>)<sub>2</sub> distills over in addition to butyl acetate which quantitatively corresponds to formula 2. When a mixture Ti(OC<sub>4</sub>H<sub>9</sub>)<sub>4</sub>/(CH<sub>3</sub>)<sub>2</sub>Si(OCOCH<sub>3</sub>)<sub>2</sub> is distilled in a ratio 1:1, it hardens and prevents the reaction from going to completion. At ratios of 2:1 and 4:1 butyl polytitanium oxane (C<sub>4</sub>H<sub>9</sub>O)<sub>2n+2</sub>Ti<sub>n</sub>O<sub>n-1</sub> and not polytitanium siloxane is left after distillation. Alkyl orthotitanates form with acetic acid anhydride alkoxy titanium acetates according to Ti(OR)<sub>4</sub>+(CH<sub>3</sub>CO)<sub>2</sub>O → (RO)<sub>3</sub>TiOCOCH<sub>3</sub>+CH<sub>3</sub>COOR. These react when heated according to (n-1)(RO)<sub>3</sub>TiOCOCH<sub>3</sub>+Ti(OR)<sub>4</sub> → (RO)<sub>2n+2</sub>Ti<sub>n</sub>O<sub>n-1</sub>+(n-1)CH<sub>3</sub>COOR. The acyloxy compounds of silicon which are silicon anhydrides of carboxylic acids have anhydride properties. An anhydride reaction is therefore assumed to take place in the first stage according to: 2Ti(OC<sub>4</sub>H<sub>9</sub>)<sub>4</sub>+(CH<sub>3</sub>)<sub>2</sub>Si(OCOCH<sub>3</sub>)<sub>2</sub> → 2(C<sub>4</sub>H<sub>9</sub>O)<sub>3</sub>Ti(OCOCH<sub>3</sub>)<sub>2</sub>+(CH<sub>3</sub>)<sub>2</sub>Si(OC<sub>4</sub>H<sub>9</sub>)<sub>2</sub> (5). It is exothermic at room temperature. The heterofunctional condensation according to (C<sub>4</sub>H<sub>9</sub>O)<sub>3</sub>TiOCOCH<sub>3</sub> → [(C<sub>4</sub>H<sub>9</sub>O)<sub>2</sub>TiO]<sub>x</sub> + CH<sub>3</sub>COOC<sub>4</sub>H<sub>9</sub> follows.

Card 3/49

23707

Reaction of butyl ...

S/190/61/003/006/010/019  
B110/B208

If the molar ratio  $Ti(OC_4H_9)_4/(CH_3)_2Si(OCOCH_3)_2$  exceeds the value 2:1 and is between 4:1 and 2:1, the free butyl orthotitanate in the reaction mass gives rise to the following reactions:  $2nTi(OC_4H_9)_4 + (n-1)(CH_3)_2Si(OCOCH_3)_2 \rightarrow 2(C_4H_9O)_2n+2Ti_nO_{n-1} + (n-1)(CH_3)_2Si(OC_4H_9)_2 + (n-1)CH_3COOC_4H_9$  (7). Studying the reaction with different molar ratios revealed that the Ti-content of the end product depends on the ratios of the reactants of formula (7). K. A. Andriancev and T. N. Ganina (Zh. obshch. khimii, 29, 605, 1959) found that in this case acetoxy groups are substituted on the titanium for the butoxy groups, forming cyclic titanium oxane compounds instead of the trimethyl siloxy titanium to be expected.  $Ti(OC_4H_9)_4$  prepared from 23.4g (0.069 mole)  $TiCl_4$  and butyl alcohol in the presence of ammonia, boiling at 167-168°C/4mm, and 5.2g (0.029 mole)  $(CH_3)_2Si(OCOCH_3)_2$  synthesized from dimethyl dichlorosilane and acetic anhydride (boiling point 155-161°C;  $n_D^{20} = 1.401$ ) reacted in a ratio of 7:3. The exothermic reaction already set in during mixing in the flask.

Card 4/

23767

S/190/61/003/006/010/019

B110/B208

## Reaction of butyl ...

and the mass became homogeneous. During distillation on a metal bath at 200-210°C a liquid boiling at 125-127°C distilled over. On distillation of butyl acetate at 170-180°C and 5-6mm a liquid with a boiling point 89-91°C/20mm distilled over. After distillation of volatile fractions at 190-200°C and 5-6mm a viscous, transparent orange liquid with the formula  $(C_4H_9O)_2Ti_2O_6$  was left (Table). The butyl acetate boiled at 124-125°C;  $d_4^{20} = 0.8179$ ;  $n_D^{20} = 1.3953$ . The dimethyl dibutoxy silane  $(CH_3)_2Si(OCH_3)_2$  found in the residue had a boiling point of 75°C at 10mmHg and of 186-188°C at atmospheric pressure;  $n_D^{30} = 1.4058$ . 19.5 g (0.057 mole) butyl orthotitanate were mixed with 5.8g (0.057 mole) acetic anhydride with a boiling point of 138-138.5°C. Like in the first experiment, The mixture got warm and homogeneous. 13.2g butyl acetate were distilled and a viscous, transparent liquid of orange-yellow color was left:  $[(C_4H_9O)_2TiO]_x$ . Butyl polytitanate was obtained in an analogous

Card 5/3

23/67

S/190/61/003/006/010/019

B110/B208

Reaction of butyl ...

manner from 13.7g (0.04 mole) butyl orthotitanate and 5.1g (0.03 mole) acetic anhydride ( $C_4H_6O_2$ )  $Ti_4O_3$ . There are 1 table and 12 references.

9 Soviet-bloc and 3 non-Soviet-bloc. The references to English-language publications read as follows: Ref. 9: K. G. Frisch, P. A. Goodwin, R. E. Scott, Jr., Amer. Chem. Soc., 73, 4584, 1952. Ref. 12: R. O. Sauer, Jr., Amer. Chem. Soc., 76, 138, 1948.

ASSOCIATION: Institut khimii Ural'skogo filiala AN SSSR  
(Chemical Institute of the Ural Branch of AS USSR)

SUBMITTED: July 26, 1960

Tables: Reaction of butyl Orthotitanate with dimethyl diacetoxy silane.  
Legends: 1) mole; 2) molar ratio I:II; 3) formula of the product to be expected from equation; 4) elementary composition of the residue in the flask; 5) calculated; 6) found.

Card 6/1

10379  
15.8110

S/190/62/004/009/001/014  
B101/B144

AUTHORS: Bulatov, M. A., Spasskiy, S. S., Mishina, S. G.

TITLE: Some polyesters of bis-(hydroxy-methyl)-tetramethyl disiloxane

PERIODICAL: Vysokomolekulyarnyye soyedineniya, v. 4, no. 9, 1962, 1310-1315

TEXT: The reaction of bis-(chloro-methyl)-tetramethyl disiloxane with succinic, phthalic or maleic acids in xylene in the presence of triethyl amine (method A) was studied; also that of bis-(chloro-methyl)-tetramethyl disiloxane with the sodium or potassium salts of the above acids in dimethyl formamide (method B):  $n\text{ClCH}_2-\text{Si}(\text{CH}_3)_2-\text{O}-\text{Si}(\text{CH}_3)_2-\text{CH}_2\text{Cl}$   
 $+ n\text{HOOC-R'-COOH} + 2n(\text{C}_2\text{H}_5)_3\text{N}\xrightarrow{\text{Cl}} [\text{CH}_2-\text{Si}(\text{CH}_3)_2-\text{O}-\text{Si}(\text{CH}_3)_2-\text{CH}_2\text{OOC-R'-COO}]_n\text{H}$   
 $+ (2n-1)(\text{C}_2\text{H}_5)_3\text{N}\cdot\text{HCl}; \text{R}' = -\text{CH}_2\text{CH}_2-, -\text{C}_6\text{H}_4-, \text{or } -\text{CH}=\text{CH}-.$  Physical data for the resulting compounds are given as follows (first figure: methods A; second figure: methods B). Polymaleinhydroxy-methyl-tetramethyl disiloxane: molecular weight (MW): 436, 740; acid number (AN) (mg KOH/g) 3.98, 3.21;  $d_4^{20} 1.108, 1.116; d_D^{20} 1.4712, 1.4828.$  Polyphthalohydroxy-methyl-tetra-

Card 1/2

Some polyesters of...

S/190/62/004/009/001/014  
B101/B144

methyl disiloxane: MW 610, 989; AN 7.33, 1.61;  $d_4^{20}$  1.138, 1.145;  $n_D^{20}$  1.5060, 1.5125. Polysuccinhydroxy-methyl-tetramethyl disiloxane (only method B): MW 1160; AN 5.75;  $d_4^{20}$  1.102;  $n_D^{20}$  1.4610. The low values of AN and MW

suggest that the ends of the polyester chains are mainly occupied by chloro-methyl groups. The polyester of maleic acid polymerizes with vinyl compounds. The bulk copolymerize with styrene is a transparent, soft substance insoluble in all organic solvents, used as a thermosetting resin. There is 1 table. The most important English-language references are:  
K. L. Merker, J. E. Noll, J. Organ. Chem., 21, 1537, 1956; K. L. Merker,  
USA Patent 2793223, 1957; USA Patent 2833802, 1958.

ASSOCIATION: Institut khimii Ural'skogo filiala Akademii nauk SSSR  
(Institute of Chemistry of the Ural Branch of the Academy of Sciences USSR)

SUBMITTED: May 17, 1961

Card 2/2

I. 11262-63EPR/EWP(j)/EPF(c)/ENT(m)/BD3/ES(s)-2AFIT/C/ASD/ESD-3/SSDPs-4/Pc-4/Pr-4/Pt-4-RM/WWACCESSION NR: AP3004770S/0191/63/000/008/0020/00228382AUTHOR: Tarasov, A. I., Spasskiy, S. S.TITLE: Copolymers of poly(1,3-butylene fumarate) with methyl methacrylate and butyl vinyl etherSOURCE: Plasticheskiye massy\*, no. 8, 1953, 20-22

TOPIC TAGS: poly(1,3-butylene fumarate phthalate), methyl methacrylate, butyl vinyl ether, copolymer, benzoyl peroxide, thermomechanical curve, copolymer electric strength, copolymer dielectric strength, copolymer resistivity, co-polymer mechanical properties, copolymer Vicat softening point

ABSTRACT: Copolymer of poly(1,3-butylene fumarate phthalate) (I), methyl methacrylate, and butyl vinyl ether have been synthesized for the first time and their thermomechanical, physicomechanical, and electrical properties studied. Polyester I was prepared from 1,3-butanediol, maleic anhydride, and phthalic anhydride in a 1/0.7/.03 molar ratio. Copolymerization was conducted in the presence of 0.5% of benzoyl peroxide in a metal mold. The total monomer content of the copolymers was 24 and 40%. They are transparent solids insoluble

Card 1/2

L 14262-63

ACCESSION NR: AP3004770

in all solvents. The physicomechanical and electrical properties of copolymer No. 3, for example, which contains 7% butyl vinyl ether [methyl methacrylate content unspecified], are as follows: density, 1.230 g/cm<sup>3</sup>; Vicat softening point, 180°C; impact strength, 14--25 kg-cm/cm<sup>2</sup>; bending strength, 460 kg/cm<sup>2</sup>; hardness, 4.0 kg/mm<sup>2</sup>; electric strength, 46.6 kv/mm; dielectric constant, 5.0--8.5; loss tangent at 50 cps, 0.07; volume resistivity,  $0.34 \times 10^{15}$  ohm cm; and surface resistivity,  $0.72 \times 10^{14}$  ohm. Analysis of the thermomechanical curves revealed the effect component ratio has on copolymer mechanical properties. Plasticity is determined by methyl methacrylate, which tends to form linear poly(methyl methacrylate) chains that graft onto I. Butyl vinyl ether has two effects: it crosslinks polyester I chains with short linkages, and it terminates poly(methyl methacrylate) chain growth. Both effects of the ether tend to increase copolymer strength and stiffness. Orig. art. has: 2 figures and 2 tables.

ASSOCIATION: none

SUBMITTED: 00

DATE ACQ: 28Aug63

ENCL: 00

SUB CODE: CH, MA  
Card 2/2

NO REF Sov: 006

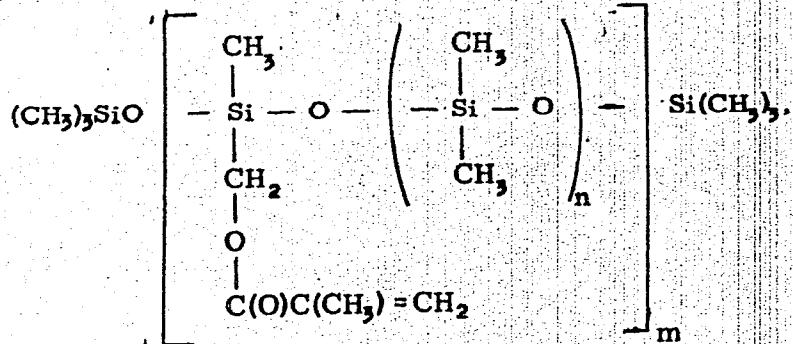
OTHER: 000

AID Nr. 972-5 21 May SPASSKIY S. S.

## POLY(ORGANOSILOXANES) CONTAINING METHACRYLATE GROUPS (USSR)

Bulatov, M. A., S. S. Spasskiy, and S. G. Mishina. Vysokomolekulyarnyye soyedineniya, v. 5, no. 3, Mar 1963, 343-347. S/190/63/Q05/003/008/024

Poly(organosiloxanes) of the general formula



where  $n = 0, 1, 2, 3, 5$ , or  $9$ , have been synthesized by condensation of (methacrylatomethyl)methyldiethoxysilane (I) with dimethyldiacetoxysilane and dimethyl-diethoxysilane in the presence of aqueous  $\text{C}_2\text{H}_5\text{HSO}_4$  at room temperature.

Card 1/2

AID Nr. 972-5 21 May

## POLY(ORGANOSILOXANES) [Cont'd]

S/190/63/005/003/008/024

Treatment of the condensation products with calculated amounts of hexamethyl-disiloxane in the presence of concentrated H<sub>2</sub>SO<sub>4</sub> yielded poly(organosiloxanes) with the desired chain length. A polymer containing methyl methacrylate groups at every Si atom was prepared by hydrolysis of I with a mixture of water and alcohol in the presence of H<sub>2</sub>SO<sub>4</sub>. All the synthesized polymers are transparent, colorless liquids of mol wt 1645 to 2330. Their kinematic viscosity,  $\eta^{20}$ , and  $n_D^{20}$  increase with an increase of the methyl methacrylate-Si ratio. In the presence of peroxides, all the synthesized polysiloxanes polymerize and co-polymerize with other unsaturated monomers such as styrene to form cross-linked, insoluble, glassy products. The very unusual shape of the thermomechanical curve of the polymer with a methyl methacrylate-Si ratio of 1:3 indicates that this polymer does not melt, but decomposes at about 400°C. It was synthesized from (chloromethyl)methyldiethoxysilane and methacrylic acid in the presence of triethylamine. The study was carried out by the Institute of Chemistry, Ural Branch, Academy of Sciences USSR.

[BAO]

Card 2/2

ALEKSEYEVA, I.A.; SEMERNEVA, G.A.; SPASSKIY, S.S.; Prinimala uchastiye . . .  
SAMARINA, L.A.

Copolymerization of unsaturated polyesters with vinyl and allyl monomers.  
Part 15: Polydiethylene glycol fumarate polymer studied by means of infra-  
red spectroscopy and by chemical methods. Vysokom. soed. 5 no.9:1297-1302  
S '63. (MIRA 17:1)

1. Institut khimii Ural'skogo filiala AN SSSR.

ALEKSEYEVA, I.A.; SPASSKIY, S.S.

Investigation of polymers of polydiethylene glycol fumarate and copolymers of polydiethylene glycol fumarate with styrene by means of infrared spectroscopy. Trudy Kom. anal. khim. 13: 356-359 '63. (MIRA 16:5)

1. Institut khimii Ural'skogo filiala AN SSSR.  
(Diethylene glycol) (Fumaric acid) (Spectrum, Infrared)

"APPROVED FOR RELEASE: 08/23/2000

CIA-RDP86-00513R001652630012-5

SPATARIU, Arcadia

Movement of marine sediments. Studii hidraul 6:75-158 '64.

APPROVED FOR RELEASE: 08/23/2000

CIA-RDP86-00513R001652630012-5"

ACCESSION NR: AP4017638

S/0190/64/006/002/0265/0268

AUTHORS: Alekseyeva, I. A.; Samerneva, G. A.; Samarina, L. A.; Bulatov, M. A.;  
Spasskiy, S. S.

TITLE: The synthesis, polymerization and copolymerization of polyorganosiloxanes containing methacrylate groups. 2. Investigation of polymerization and copolymerization by the infrared absorption spectra method

SOURCE: Vyssokomolekulyarnye soyedineniya, v. 6, no. 2, 1964, 265-268

TOPIC TAGS: organosilicon compound, organosiloxane, polyorganosiloxane, methacrylate, styrene, copolymer with styrene, methacrylate polysiloxane polymer, double bond, saturation of double bond, infrared spectra, absorption band, absorption band optical density

ABSTRACT: Block polymerization of methacrylate polysiloxanes (containing from zero to nine of the  $\text{Si}(\text{CH}_3)_2\text{O}$  groups) and their copolymerization with styrene (in a ratio of 1 Mol of styrene monomer per 1 Mol of polysiloxane unit) were investigated. The polymerization was conducted in the presence of 0.2% benzoyl peroxide in sealed ampules, in an atmosphere of nitrogen, for 6 hours at 70 and 100C and 12 hours at 120C, when it underwent complete solidification. The infrared spectra  
Card 1/6

ACCESSION NR: AP4017638

were taken by means of a IKS-14 registering spectrophotometer, the absorption band at  $1634 \text{ cm}^{-1}$  having been selected as representing the  $\text{CH}_2 - \text{C} -$  double bonds which decrease in numbers during the reaction process. The other band was the one at  $697 \text{ cm}^{-1}$ , which represents the  $\text{Si}(\text{CH}_3)_2$  groups, the number of which remains constant. As can be seen from Fig. 1 on the Enclosure, an increase in the number of methylsiloxane groups causes the optical density ratios to drop due to a decrease in the double bond content. It is suggested that the presence of unreacted double bonds is due to steric hindrances. The copolymerization with styrene was found to proceed towards an almost complete saturation of the double bonds. Orig. art. has: 2 charts and 1 table.

ASSOCIATION: Institut khimii Ural'skogo filiala AN SSSR (Institute of Chemistry, Ural Division AN SSSR)

SUBMITTED: 03Dec62

DATE ACQ: 23Mar64

ENCL: 01

SUB CODE: CH

NO REF SOV: 004

OTHER: 002

Card 2/8

L 27786-65 EWT(m)/EPA(s)-2/EPF(c)/T/EWP(j)/EPR/EWA(c) Fe-4/Pr-4/Ps-4/Pt-10

ME/RM

ACCESSION NR: AP5004308

S/0191/65/000/002/0013/0015

AUTHOR: Spasskiy, S. S.; Kodolov, V. I.; Kopylov, A. I.; Obolonskaya, N. A.; Tarasov, A. F.

TITLE: The synthesis of polyethyleneglycol-fumarate-phenylphosphinate and its copolymerization with vinyl monomers

SOURCE: Plasticheskiye massy, no. 2, 1965, 13-15

TOPIC TAGS: polyethyleneglycol synthesis, polyfumarate synthesis, polyphenylphosphinate synthesis, vinyl copolymer, phosphorylated polymer, styrene copolymer, methyl methacrylate copolymer, unsaturated polyester

ABSTRACT: Phosphorus-containing, unsaturated, hetero-chain polymers were prepared and copolymerized with styrene, or with a mixture of styrene and methyl methacrylate to obtain stable, solid and non-combustible resins. Diethylphenylphosphinate was prepared by Gefter's method (Fosforoorganicheskkiye monomery i polimery, Izd. AN SSSR, 1960) and polyethyleneglycol fumarate was obtained by melt condensation of maleic anhydride with ethyleneglycol (1:3) for 2 hrs. at 120°C and subsequently at 180°C to an acid number of 1-3 mg KOH/g, removing excess glycol under 10 mm Hg pres-

Card 1/2

L 27786-65

ACCESSION NR: AP5004308

sure. The product contained 9-10% hydroxyl groups and was reesterified with an equivalent amount of diethylphenylphosphinate under nitrogen, 6 hrs. at 160°C and 18-25 hrs. at 180°C. Removal of low-molecular compounds at 180°C and 5 mm Hg gave unsaturated polyesters of 80-85 acid number, negligible hydroxyl content, 400-500 molecular weight, and 7% phosphorus content. The ester was polymerized in metal forms with styrene and 0.2-0.5% bis-tert.-butyl peroxide or 0.2% benzoyl peroxide for 8-10 hrs. at 80°C and 12 hrs. at 100°C, or with a mixture of styrene-methyl methacrylate and 0.2% benzoyl peroxide for 15-20 hrs. at 100°C. Analysis of the products of reesterification indicated that polymerization does not occur during this process and that only one ethoxy group of the phenylphosphinate is replaced by low molecular polyfumarate. Formulas for the mixture of polyesters are proposed. Copolymers of 80 and 70% polyester, 10 and 15% styrene, and 10 and 15% methyl methacrylate had densities of 1.28 and 1.3 g/cc, they adsorbed 0.37 and 0.25% water, had impact strengths of 20-25 and 15 kg.cm/cm<sup>2</sup> and a weight loss of 6 and 10% at 200°C in 24 hrs., and were self-extinguishing with a weight loss of 5 and 9%, respectively. Elongation under load increased rapidly at 250-300°C. Orig. art. has: 4 tables, 1 figure, and 5 formulas.

ASSOCIATION: None

SUBMITTED: 00

ENCL: 00

SUB CODE: OC

NO REF SOV: 007  
Card 2/2

OTHER: 000

L 55678-65 EWT(m)/EPF(c)/EWP(j)/T Pc-4/Pr-4 RM  
ACCESSION NR: AP5017835

UR/0286/55/000/011/0076/0076  
678.674.002.2

25

B

7

AUTHOR: Tarasov, A. I., Kodolov, V. I., Spasskiy, S. S.

TITLE: A method for producing unsaturated phosphorus-containing polyesters.  
Class 39, No. 171554

SOURCE: Byulleten' izobreteniy i tovarknykh znakov, no. 11, 1965, 76

TOPIC TAGS: polymer, polyester plastic, unsaturated compound

ABSTRACT: This Author's Certificate introduces a method for producing unsaturated phosphorus-containing polyesters by polycondensation of dichloroanhydrides of phosphonic acids with hydroxyl-containing compounds during heating in a stream of nitrogen. A wider selection of polymers of this type is provided, and their polymerization activity is improved by using polyunsaturated oligomers, e.g. polyallyl glycerin phthalate, as the hydroxyl-containing compound.

ASSOCIATION: none

SUBMITTED: 14Feb64

✓  
Card 1/1

ENCL: 00

EO REF Sov: 000

SUB CODE: CC, GC

OTHER: 000

SPASSKII, V. A.

*CV*

The simplest methods for the determination of the quality of drinking water in the field. V. A. SPASSKII. *Voyenne-Med. Zhur. (Militair. Med. Z.)* 2, 122 (21961); *Chem. Zentr.* 1931, II, 1404.—The author discusses the use of the drop method for the detection of  $\text{HNO}_3$  (Grize reagent),  $\text{HNO}_3$  (as  $\text{HNO}_2$  after reduction) and  $\text{NH}_3$  (Nessler's reagent), detn. of Cl according to Mohr, and the hardness of the water with  $\text{HCl}$ .

M. G. Moon

ASIA-SLA - METALLURGICAL LITERATURE CLASSIFICATION

"APPROVED FOR RELEASE: 08/23/2000

CIA-RDP86-00513R001652630012-5

SPASSKIY, V. (Lt. Col. of the Medical Service)

"The Hygiène of Aviation," Encyclopedic Dictionary of  
Military Medicine, Vol. 1, pp 12-16, 1946

Translation 1503003, Apr 53

APPROVED FOR RELEASE: 08/23/2000

CIA-RDP86-00513R001652630012-5"

ROZANOV, P., and V. SPASSKIY.

Klimat. (In: Entsiklopedicheskii slovar' voennoi meditsiny, ed. E.I. Smirnov. Moskva, 1947. t. 2, col. 1299-1311, tables) Title tr.: Climate (In: Encyclopedic dictionary of war medicine).

Contains a definition of the term in military medicine (as the sum total of geographic and meteorologic factors apt to influence the health of the armed forces), and sections on: the importance of climate and microclimate for the armed forces and their condition, especially in wintertime; kinds of climate, including: Polar climate (col. 1301-2), its area, peculiarities and effect on man; mountain climate (col. 1305), and the arctic-coast climate (col. 1307). Bibliography (about 20 items).

Copy seen: ~~DEC~~.

SPASSKIY, Vladislav Akimovich, polkovnik meditsinskoy sluzhby, professor;  
AREYEV, Viktor Alekseyevich, podpolkovnik meditsinskoy sluzhby,  
kandidat meditsinskikh nauk; PETROVSKIY, K.S., polkovnik meditsin-  
skoy sluzhby dotsent, redaktor; BEZDENEZHNYKH, P.T., podpolkovnik,  
redaktor; MYASNIKOVA, T.F., tekhnicheskiy redaktor

[Military hygiene] Voennaia gigiena. Voen. izd-vo Ministerstva  
obor. SSSR, 1956. 127 p. (MLR 9:10)  
(MILITARY HYGIENE)

SPASSKIY, V.A., polkovnik meditsinskoy sluzhby, professor

Tasks in studying working conditions and hygienic services for radar  
operating personnel. Voen.-med.zhur. no.9:25-27 S '56. (MLRA 10:3)  
(ELECTRICITY--PHYSIOLOGICAL EFFECT)  
(RADAR--HYGIENIC ASPECTS)

SPASSKIY, V.A.  
SPASSKIY, VLADISLAV AKIMOVICH

N/5  
238.4  
.S73

Voyennaya gigiena (Military hygiene, by) V. A. Spasskiy i V. A. Arkayev.  
Moskva, Voenizdat, 1957.

127 p. illus., tables (Nauchno--popularnaya Biblioteka Soldata i Matrosa)

БИБЛІОГРАФІЯ

SPASSKIY, Vladislav Akimovich, polkovnik med. sluzhby, prof.;  
ARKAYEV, Viktor Alekseyevich, polkovnik, med. sluzhby,  
dots.; Prinimali uchastiye: ANTIPIN, G.M., podpolkovnik  
med. sluzhby; POLYAKOV, V.I., podpolkovnik med. sluzhby;  
PAKHOMOV, V.I., polkovnik med. sluzhby, red.; CHAPAYEVA,  
R.I., tekhn. red.

[Military hygiene] Voennaia gigiena. Izd.2., perer. i dop.  
Moskva, Voenizdat, 1962. 167 p. (MIRA 15:8)  
(Military hygiene)

SPASSKIY, V. I.

Significance of micro-trepanation method in the investigation  
of trachoma. Vest. oft., Moskva 30 no.3:13-14 May-June 1951.  
(CLML 21:1)

1. Professor. 2. Of Bashkir Scientific-Research Trachoma  
Institute (Director -- Docent G. Kh. Kudoyarov).

SPASSKIY, V.I., professor, zasluzhennyy deyatel' nauki Bashkirskoy ASSR.

Report on the activities of the Scientific Research Institute for the Study of Trachoma and the Ophthalmological Clinic of the Bashkir Medical Institute. Vest. oft. 33 no.1:10-14 Ja-Y '54. (MLRA 7:1)  
(Bashkiria--Conjunctivitis, Gramular) (Conjuntivitis, Gramular--  
Bashkiria)

OL'SHANETSKIY, A.A.; SPASSKIY, V.M.

Ligation of the inferior vena cava above insertion of the renal veins.  
Khirurgiia, Moskva no.11:31-33 Nov 1953. (CIML 25:5)

1. Candidate Medical Sciences of Ol'shanetskiy; Student for Spasskiy.
2. Of the Department of Surgery (Head -- Docent A. V. Fedinets),  
Uzhgorod State University.

SPASSKIY, V.M., student IV kursa meditsinskogo fakul'teta

Sectional ligation of the superior vena cava. Khirurgija no.8:71  
(MLRA 7:11)  
Ag '54.

1. Uzhgorodskogo gosudarstvennogo universiteta.  
(VENAE CAVAE, surgery,  
ligation, sectional)

SPASSKIY, V. S.

USSR/Polymer - Foundry, Equipment Mar 51

"New Construction of the Jolt Counter for Jarring  
Mechanism," V. S. Spasskiy, Eng., Cen Design Bur  
of Foundry Equipment

"Liter Proizvod" No 3, pp 11, 12

New pneumatic device is based on the principle of  
batch counting of the number of jolts, assuming that  
molds of satisfactory packing quality may be ob-  
tained by the same number of jolts if the pressure  
in compressed-air pipes is maintained at the level  
of 5-6 at. Max number of jolts is 70, min - 5.

195T43

USSR/Polymer - Foundry, Equipment Mar 51  
(Contd)

The counter may be adjusted for any number in  
multiple of 5. It is simpler to handle and ad-  
just than any other of the existing automatic  
devices.

195T43

PA 195T43

SPASSKIY, Yu.I.

Mast hoist. Nov. tekh. zhil.-kom. khoz.: Zhil. khoz. no. 2: 114-118  
'63. (MIRA 18:6)

SPASSKOVA, A. I.

"Investigations in the Field of Isomeric Conversions of the  $\alpha$ -Ketoalcohols: VI. Obtaining the Methylalktolides of the Fatty-Aromatic  $\alpha$ -Ketoalcohols." Zhur. Obshch. Khim., 16, No. 10, 1946. Mbr., Lab. Organic Chemistry, Chem. Sci. Res. Inst., Leningrad Order, Lenin State Univ., im. A. A. Zhdanov -1945.

*Spasskova, H. I.*

YAKUBCHIK, A.I.; SPASSKOVA, A.I.

The chemical structure of the autopolymer of butadiene. Zhur. ob.  
khim. 26 no.6:1629-1635 Je '56. (MIRA 11:1)

1.Leningradskiy gosudarstvennyy universitet.  
(Chemical structure) (Butadiene)

SPASSKOVA, A. I.

79-1-30/63

AUTHORS:

Yakubchik, A. I., Spasskova, A. I.,  
Tsitokhtsev, V. A.

TITLE:

Investigations of the Chemical Structure of Boletic  
Polymer Divinyl II (Izuchenie khimicheskogo stroyeniya  
gubchatogo polimera divinila. II)

PERIODICAL:

Zhurnal Obshchey Khimii, 1958, Vol. 28, Nr 1, pp. 143-149  
(USSR)

ABSTRACT:

In the ozonolysis products of the boletic (spongy) polymer the authors earlier detected the presence of formic, succinic, butane-1,2,4-tricarboxylic and hexane-1,x,y,6-tetracarboxylic acid. Kahrach (reference 3) assumed that this polymer was a polymer structure. In the present paper the acids were separated according to the method of classifying chromatography, a method which permits an exact separation also of those acids which little differ in their structure and molecular weight and which occur in small quantities. Beside the above-mentioned acids propane-1,2,3-tricarboxylic and levulinic acid were found. Moreover peak II on chromatogram 1 corresponds to propionic acid. Its development

Card 1/3

Investigations of the Chemical Structure of Boletic Polymer  
Divinyl II

79-1-30/63

is to be understood on the basis of an abnormal ozonolysis of the part -1,4,-1,4. Propane-1,2,3-tricarboxylic acid formed in the ozonolysis of the ramified part developed on the transfer of the chain after the  $\alpha$ -methyl group in the domain -1,4 - 1,4. Marvel (reference 5) considered it an abnormal ozonolysis product. Levulinic acid might have developed according to the given scheme. Figures 1 and 2 show chromatograms which were taken in the separation of the acids obtained from the ozonolysis products of the divinyl boletic polymer. The percentages of the carbon skeleton of the polymer in the acids and of its carbon skeleton in the parts of the chromatogram were chromatographically calculated. The results are represented in tables 1 and 2. In the divinyl spongy polymer which does not possess any properties of rubber, the authors determined chromatogram domains of a structure which divinyl caoutchoucs also have. As the properties of the high-molecular compounds are not only determined by the chemical structure, but also by shape, size, mutual position and interaction of the molecules, it is

Card 2/3

Investigations of the Chemical Structure of Boletic  
Polymer Divinyl II

79-1-30/63

possible that the divinyl polymer consists of a chain of macromolecules which are tied together to a small bundle by an insoluble nucleus. Thus it seems that the formation mechanism of the divinyl boletic polymer suggested by Kahrach is the correct one.

There are 2 figures, 5 tables, and 11 references, 5 of which are Slavic.

ASSOCIATION: Leningrad State University (Leningradskiy gosudarstvennyy universitet)

SUBMITTED: December 21, 1956

AVAILABLE: Library of Congress

Card 3/3      1. Chemistry 2. Polymers-Chemical analysis 3. Chromatograms

AUTHORS:

Yakubchik, A. I., Spasskova, A. I.,  
Tikhomirov, B. I.

79-28-4-15/60

TITLE:

On the Abnormal Products of the Ozonolysis of the Vinyl-  
1-Cyclohexene-3 (Ob anomal'nykh produktakh ozonoliza  
vinil-1-tsiklogeksena-3)

PERIODICAL:

Zhurnal Obshchey Khimii, 1968, Vol. 28, Nr. 4,  
pp. 916-920 (USSR)

ABSTRACT:

Long ago it was already observed, that in products of ozonolysis such substances may be present, the production of which can not be explained by the traditional schemes of the formation and decomposition of ozonides. These substances were later on designated as abnormal products of ozonolysis. Further investigations and an improvement of the analytical methods showed that the formation of abnormal products during ozonolysis is a quite common phenomenon (References 1,2). Even in the case of substances with a well known structure the problem of the degree of abnormal reaction courses is not

Card 1 / 3

On the Abnormal Products of the Ozonolysis of the  
Vinyl-1-Cyclohexene-3

79-28-4-15/60

easily solved. In high polymers and in rubber it is even more complicated. Some knowledge on the course of the reaction may be gained from the investigation of the behaviour of a model substance with a known structure showing the structural properties of rubber. Vinyl-1-cyclohexene-3 may serve as a model for divinyl rubber. In the present paper the products of the oxidation decomposition of vinyl-1-cyclohexene-3-ozonide by means of acetylhydrogen peroxide were investigated. The same conditions were applied in this process as are used in the ozonolysis of divinyl rubbers in the laboratory. The influence of the  $\alpha$ -methylene group and of the tertiary carbon atom bound to the vinyl group on the formation of abnormal ozonolysis products was also examined. The separation of the acids forming in the decomposition of the ozonide was performed with the help of distributive chromatography. Summary: 1) Apart from normal products -1,2,4-butanetricarboxylic - and formic acids - also abnormal products - succinic acid, 1,2,3-propanetricarboxylic-

Card 2/3

On the Abnormal Products of the Ozonolysis of the 79-28-4-15/60  
Vinyl-1-Cyclohexene-3

and propionic acids were found in the ozonolysis products of vinyl-1-cyclohexene-3. 2)  $\beta$ -ethylglutaric acid , an abnormal product, was discovered in the ozonolysis products of ethyl-1-cyclohexene-3. 3) The abnormal reactions are caused as well by the presence of the  $\alpha$ -methyl group as by the labile bond between the tertiary carbon atom and the carbon atom in the double binding. 4) A somewhat lower yield of 1,2,4 butanetricarboxylic acid and a somewhat higher yield of succinic acid as well as of 1,2,3 propanetricarboxylic acids may be expected in the products of ozonolysis of divinyl rubbers, the macromolecules of which have a structure range of -1,4 -1,2 -1,4 -. There are 2 figures, 1 table and 21 references, 6 of which are Soviet.

ASSOCIATION: Leningradskiy gosudarstvennyy universitet (Leningrad State University)

SUBMITTED: April 12, 1957

Card 5/3

SOV/79-8-12/66

AUTHORS: Yakubchik, A. I. Spasskova, A. I., Shibayev, L. A.

TITLE: Investigation of the Chemical Structure of Sodium Carbonate  
Divinyl Polymers (Izuchenie khimicheskogo stroyeniya natriy-  
uglekislotnogo polimera divinila)

PERIODICAL: Zhurnal obshchey khimii, 1958, Vol. 28, Nr 8, pp.2056-2061 (USSR)

ABSTRACT: The sodium carbonate divinyl polymer forms by polymerizing divinyl in the presence of metallic sodium in an envelope of dry carbon dioxide. (Refs 1, 2). Steinberg (Shtemmg) used the isoprene polymers levulin aldehyde and levulinic acid, the decomposition products of the ozonides of sodium carbonate, to show that the isoprene is bonded to the sodium carbonate polymer in the 1 and 4 positions. In investigating the chemical structure of the sodium carbonate divinyl polymer, which was maintained at temperatures of 20° and 50°, the authors found that in this polymer a greater per cent composition of the divinyl molecules was bonded in the 1 and 4 positions and that its structure resembles that of the spongy divinyl polymer (Ref 3). Table 1 shows the chemical structures of the sodium carbonate and the spongy polymers.

Card 1/3

SOV/79-28-8-12/66

Investigation of the Chemical Structure of Sodium Carbonate Divinyl Polymer

Although their structures are similar to those of the rubbery polymers, their properties differ greatly from those of the sodium divinyl rubbers. These latter are inelastic and relatively insoluble as a result of their chemical structures and other factors characteristic of compounds of high molecular weight. The structure of the sodium carbonate divinyl polymer was investigated by ozonolysis. The products of this ozonolysis were found to be levulinic acid, formic acid, and succinic acid, as was also the case in the ozonolysis of the rubbery divinyl polymer and the divinyl rubber (Refs 3, 4). In figures 1, 2 and 3 the chromatograms of the acids are given, showing how the polymers in question separated from the other products of the ozonolysis. According to these chromatograms the per cent of carbonic acid skeleton of the polymer in the acid and in the ozonolysis sections was calculated. The results are given in tables 2 and 3. There are 3 figures, 5 tables, and 10 references, 7 of which are Soviet.

ASSOCIATION: Leningradskiy gosudarstvennyy universitet  
(Leningrad State University)

Card 2/3

SOV/79-28-8-12/66  
Investigation of the Chemical Structure of Sodium Carbonate Divinyl Polymers

SUBMITTED: June 28, 1957

Card 3/3

SOV/79-28-11-42/55

AUTHORS: Yakubchik, A.I., Spasskova, A.I., Zak, A.G., Shostatskaya, I.D.

TITLE: Comparative Investigation of the Chemical Structure of the Rubbers SKB and SKBM by Ozonolysis (Srovnitel'noye izuchenie khimicheskogo stroyeniya kauchukov SKB i SKBM metodom ozonoliza)

PERIODICAL: Zhurnal obshchey khimii, 1958, Vol 28, Nr 11, pp 3090-3096 (USSR)

ABSTRACT: In the USSR three types are manufactured: the sodium divinyl rubber (SKB), the potassium divinyl rubber (SKV), and the lithium divinyl rubber (SKBM) which differ with respect to their vitrification temperature and elasticity. A comparison is made between the chemical structure of SKB and that of SKBM rubbers. These two rubbers differ in their behaviour to frost. The chemical structure was investigated by ozonolysis. In the separation of the acids obtained in the oxidizing cleavage of the ozonides the distribution chromatography was used. The chromatograms of the acid ozonolysis products of the rubbers to be investigated were plotted. Basing on the chromatograms and the chemical characterization of some acids in the ozonolysis the following acids were found: succinic, butane-1,2,4-tricarboxylic, propane-1,2,3-tricarboxylic, hexane-1,x,y,6-tetracarboxylic, formic, and levulinic

Card 1/3

SOV/79-28-11-42/55

Comparative Investigation of the Chemical Structure of the Rubbers SKB and  
SKBM by Ozonolysis

acid, which were also found in the ozonolysis products of the other divinyl rubbers (Refs 3-5). In the figures 1-4 the acid chromatograms are given. According to these chromatograms the percentage of the carbon skeleton in the parts of diverse structure is calculated (Table 1). The ozonolysis products of the SKB rubber contain 77 % carbon skeleton, and those of the SKBM rubber 82.6 %. In the rubber SKBM parts of the same structure as in rubber SKB were found, however, the percentage of the carbon skeleton in the parts-1,4-1,4- and-1,4-1,2-1,4- of rubber SKBM is higher than of rubber SKB. The structure of SKBM is more regular. This property is one of the factors that determine its stability to frost.- There are 4 figures, 4 tables, and 15 references, 10 of which are Soviet.

ASSOCIATION: Leningradskiy gosudarstvennyy universitet (Leningrad State University)

Card 2/3

S/079/60/030/007/007/020  
B001/B063

AUTHORS: Yakubchik, A. I., Spasskova, A. I.

TITLE: Investigation of the Chemical Structure of the Rubbers  
SKN-26 and SKN-40 by the Method of Ozonolysis

PERIODICAL: Zhurnal obshchey khimii, 1960, Vol. 30, No. 7, pp. 2172-2176

TEXT: Divinyl nitrile rubbers were produced by the simultaneous polymerization of divinyl and nitrile of acrylic acid. The Soviet industry produces three types of these rubbers, CKH-18 (SKN-18), CKH-26 (SKN-26), and CKH-40 (SKN-40), which are highly resistant to benzene and oils. The structure of the commercial types SKN-26 and SKN-40 were studied by the authors in ethyl acetate by means of ozonolysis. The final products were separated by chromatographic adsorption analysis which showed the following acids: formic, propionic, succinic, butane-1,2,4-tricarboxylic, propane-1,2,3-tricarboxylic, and hexane-1,2,4,6-tetracarboxylic acids. These acids may have formed by ozonolysis in the following way: succinic acid from the groups 1,4-1,4, formic acid from the groups 1,4-1,2-1,4, and 1,4-(1,2)<sub>2</sub>-1,4, butane-1,2,4-tricarboxylic acid from the groups

Card 1/3

Investigation of the Chemical Structure of the  
Rubbers SKN-26 and SKN-40 by the Method of  
Ozonolysis

S/079/60/030/007/007/020  
B001/B063

1,4-1,2-1,4 or from group (I) (Refs. 1,2):  
$$\text{-CH}_2\text{-CH=CH-CH}_2\text{-CH}_2\text{C}\equiv\text{N}-\text{CH=CH-CH}_2-$$
, hexane-1,2,4,6-tetracarboxylic

acid from the groups 1,4-(1,2)<sub>2</sub>-1,4 or from the groups (II) and (III); propane-1,2,3-tricarboxylic acid may have formed from the groups 1,4-1,4, which are branched at the  $\alpha$ -methylene group, or as an anomalous ozonolysis product of the groups 1,4-1,2-1,4 (Refs. 3,4). The presence of propionic acid is indicative of a radical decomposition of the carbon chain of rubber during ozonolysis and of a decomposition of the ozonide by way of oxidation. The unexpectedly high yield of butane-1,2,4-tricarboxylic and hexane-1,2,4,6-tetracarboxylic acids indicates that these acids were formed in the ozonolysis from the groups (I), (II), and (III). On the basis of the acid quantities found in the products of ozonolysis, the authors determined their percentual content of the carbon skeleton (Table 1). The acids identified in SKN-26 and SKN-40 contain 75 and/or 77.6% of the carbon skeleton of these rubbers. The residual part of the carbon skeleton comprises the unidentified acids (Figs. 2 and 3)

Card 2/3

Investigation of the Chemical Structure of the S/079/60/030/007/007/020  
Rubbers SKN-26 and SKN-40 by the Method of B001/B063  
Ozonolysis

(Chromatogram 1), which fact is due to the inevitable losses occurring in ozonolysis. There are 3 figures, 2 tables, and 7 references: 6 Soviet.

ASSOCIATION: Leningradskiy gosudarstvennyy universitet (Leningrad  
State University) ✓

SUBMITTED: July 1, 1959

Card 3/3

S/079/60/030/007/008/020  
B001/B063

AUTHORS: Spasskova, A. I., Rabinovich, D. I.

TITLE: Investigation of the Chemical Structure of the Sponge  
Polymer of Isoprene

PERIODICAL: Zhurnal obshchey khimii, 1960, Vol. 30, No. 7, pp. 2176-2180

TEXT: The above-mentioned polymer was obtained by the polymerization of isoprene in sealed ampoules in a nitrogen atmosphere at 15-18°C. One of the two high-molecular polymers formed in this way is rubber-like and soluble in benzene, chloroform, and other solvents, whereas the other polymer - the main product (90-95%) - is a crumbling product, unsoluble in organic solvents, and is called a sponge polymer. The chemical structure of the sponge polymer of isoprene was examined by ozonolysis. The ozonide was split in dioxane at ordinary pressure by catalytic reduction of a palladium catalyst which was applied to barium sulfate. Levulin aldehyde and levulinic acid were detected, whose quantity amounted to 63.7% of the carbon skeleton. They formed from parts of the macromolecule of the

Card 1/3

S/079/60/030/007/008/020  
B001/B063

AUTHORS: Spasskova, A. I., Rabinovich, D. I.

TITLE: Investigation of the Chemical Structure of the Sponge  
Polymer of Isoprene

PERIODICAL: Zhurnal obshchey khimii, 1960, Vol. 30, No. 7, pp. 2176-2180

TEXT: The above-mentioned polymer was obtained by the polymerization of isoprene in sealed ampoules in a nitrogen atmosphere at 15-18°C. One of the two high-molecular polymers formed in this way is rubber-like and soluble in benzene, chloroform, and other solvents, whereas the other polymer - the main product (90-95%) - is a crumbling product, unsoluble in organic solvents, and is called a sponge polymer. The chemical structure of the sponge polymer of isoprene was examined by ozonolysis. The ozonide was split in dioxane at ordinary pressure by catalytic reduction of a palladium catalyst which was applied to barium sulfate. Levulin aldehyde and levulinic acid were detected, whose quantity amounted to 63.7% of the carbon skeleton. They formed from parts of the macromolecule of the

Card 1/3

Investigation of the Chemical Structure of  
the Sponge Polymer of Isoprene

S/079/60/030/007/008/020  
B001/B063

sponge polymer, in which the isoprene molecules were linked in the positions -1,4-1,4-. Besides, succinic, acetic, and formic acids were found in the products of ozonolysis. The last-mentioned acid may have formed from the parts containing the links 1,2 or 3,4. The modes of formation of the succinic and acetic acids could only be assumed: the succinic acid may have formed from the groups -1,4-4,1 and the acetic acid as an anomalous product of ozonolysis. Both acids have possibly formed as by-products from the groups -1,4-1,4-. As no acetyl acetone was found in the catalytic reduction of the ozonide, it may be assumed that in the macromolecules of the sponge polymer the isoprene molecules are not bound in the groups -4,1-1,4- (Table 1). Thus, it was possible to determine 63.7% of the carbon skeleton in the above-mentioned reduction with the catalyst Pd/BaSO<sub>4</sub>. The carbon skeleton was formed by binding of the isoprene molecules in the -1,4-1,4- position. 14.5% of the carbon skeleton of the sponge polymer were determined in the acetic and succinic acids which are by-products of the groups -1,4-1,4-. There are 3 figures, 3 tables, and 12 references: 8 Soviet and 3 German.

Card 2/3

Investigation of the Chemical Structure of  
the Sponge Polymer of Isoprene

S/079/60/030/007/008/020  
B001/B063

ASSOCIATION: Leningradskiy gosudarstvennyy universitet (Leningrad  
State University)

SUBMITTED: July 1, 1959

Card 3/3

SPASSKOVA, A.I.; ROZANOV, Ye.F.

Chemical structure of a diisopropenyl sponge polymer. Zhur.ob.  
khim. 31 no.5:1505-1508 My '61. (MIRA 14:5)

1. Leningradskiy gosudarstvennyy universitet.  
(Butadiene) (Rubber, Synthetic)

S/080/62/035/012/011/012  
D204/D307

AUTHORS:

Spasskova, A.I. and Chia-pai

TITLE:

Polymerization of dimethylbutadiene with butyllithium and investigation of the structures of the resulting polymers

PERIODICAL:

Zhurnal prikladnoy khimii, v. 35, no. 12, 1962,  
2786-2790

TEXT:

The polymerization of dimethyl-2,3-butadiene-1,3 in hexane was studied at 25°C (5 days), 60°C (10 hrs), and 80°C (6 hrs), in the presence of n-BuLi (1 mole per 1500 moles of monomer), under strictly anhydrous and nonoxidizing conditions, and the resulting polymers were studied by ir spectroscopy and oxidation of the double bonds with benzoyl hydrogen peroxide. Quantitative conversions were obtained, yielding nonelastic polymers soluble in organic solvents, with vitrification temperatures of 3-4, 15-16, and 11-12°C and softening ranges of 83-86, 92-94, and 95-98°C, for the 25-, 60-

Card 1/2

Polymerization ...

S/080/62/035/012/011/012  
D204/D307

and 80°C- polymers respectively. The proportions of 1,4 links in the same polymers were 69.5 - 70.3, 87.4 - 89.0, and 93.7%, while the amounts of 1,2-links (decreased at higher temperatures) were 27.9 - 28.7, 7.5 - 9.1, and 6.3%. The 1,4-links were in the trans-form. There are 4 figures and 2 tables.

ASSOCIATION: Leningradskiy gosudarstvennyy universitet im. A.A. Zhdanova (Leningrad State University im. A.A. Zhdanov)

SUBMITTED: October 5, 1961

Card 2/2

ACCESSION NR: API010237

AUTHOR: Spasskova, A. I.

TITLE: Determination of unsaturation in divinylnitrile rubbers

SOURCE: Leningrad. Universitet. Vestnik. Seriya fiziki i khimii, vymp. 4, 1963,  
146-150

TOPIC TAGS: rubber, divinylnitrile number, oxidation number, oxygen, ozone, benzoylhydroperoxide group, bromine iodine

ABSTRACT: The aim of the present investigation consisted in finding out to what extent does the presence of the nitrile group in divinylnitrile rubbers interfere with the estimation of their extent of unsaturation. Commercial rubbers SKN-18, SKN-26, and SKN-40 were subjected to unsaturation determination by four methods: the procedure with benzoylhydroperoxide, and the ozonization reaction with BRI, the oxidation with nitrogen calculation method, and the unsaturation reaction with BRI, the oxidation with benzoylhydroperoxide. According to the methods: SKN-18, SKN-26, and SKN-40 amounted to 84.1, 73.2, and 62.8%. The BRI method yielded 56.0, 51.2, and 23.6%, while the ozonization reaction gave 83.5, 72.2, and 61.7%. The BRI

Card 1/2

SPASSKOVA, A.I.; OVCHINNIKOVA, T.A.

Reduction of cis-1,4-polybutadiene ozonide by lithium aluminum hydride.  
Vest. LGU 20 no.10:146-149 '65. (MIRA 18:7)

L-43871-66 EWP(j) RM

ACC NR: AP6032579

SOURCE CODE: BU/0011/65/018/012/1149/1152

B  
23

AUTHCR: Spassov, S.; Jovtscheff, A.

ORG: Institute of Organic Chemistry, BAN

TITLE: Conversion of the 4,5-debrom-5-phenyl-1-pentanol by means of an alkaline base at different temperatures

SOURCE: Bulgarska akademiya na naukite. Doklady, v. 18, no. 12, 1965. 1149-1152.

TOPIC TAGS: chemical synthesis, chemical reaction

ABSTRACT: A detailed description of the production of 5-phenyl-4-penten-1-ol is presented. The starting substance is the 5-phenyl-4-penten-1-ol in trans-configuration (R. S. Collins, M. Davis, J. Chem. Soc. 1961, 1863; Chem. Abstrs. 55, 1961, 21016b). The necessary alkinol is obtained by attaching the elementary bromine and subsequent elimination of the HBr by the alkaline base. This paper was presented by Academician D. Iwanoff on 20 September 1965. Orig. art. has: 1 figure. [Orig. art. in German.]  
[JPRS: 36,464]

SUB CODE: 07 / SUBM DATE: none / OTH REF: 006

Card 1/1 0919 2422

CSILLIK, B.; SPASSOVA, J.

On the combined use of the Crevier-Bellanger method with the Gros  
method. Dokl. bolg. akad. nauk 15 no.6:685-688 '62.

1. Note presentee par D. Kadancov.  
(SYNAPSES) (CHOLINESTERASE)

PANAYOTOV, I. [Panayotov, I.]; SPASSOVSKA, N. [Spasovska, N.]

Synthesis of unsaturated polyesteramides with aromatic nuclei by  
means of interphase polycondensation. Doklady BAN 16 no.6:  
637-640 '63.

1. Submitted by Academician D.Ivanoff [Ivanov, D.].

KUKUSHKIN, V.S.; SPASYUK, P.I.; KOVAL'CHUK, U.Ya.

Preparing for the 22d Congress of the CPSU. Put' i put.khoz.  
5 no.7:2 Jl '61. (MIRA 14:8)

1. Zamestniel' nachal'nika distansii puti, stantsiya  
Kamyshlov, Sverdlovskoy dorogi (for Kukushkin). 2. Nachal'nik  
Bogotol'skoy distant'sii puti, Vostochno-Sibirskoy dorogi (for  
Spasyuk). 3. Nachal'nik shchebenochchnogo zavoda, stantsiya  
Orlova Sloboda, Donetskoy dorogi (for Koval'chuk).  
(Railroads--Labor productivity)

SPASYUK, P.I.; SHUL'GIN, A.V.

Introduction of business accounting in railroad sections. Put' i  
put.khoz. 5 no.8:32 Ag '61. (MIRA 14:10)

1. Nachal'nik Bogotol'skoy distantsii puti Vostochno-Sibirs'koy  
dorogi (for Spasyuk).  
(Railroads--Management)

SPAT, Andras; SALIGA, Margit; STURCZ, Jozsef; SOLYOM, Janos

Effect of aldosterone on intestinal Na- and K-transport.  
Kiserl. orvostud. 16 no.2:153-156 Ap'64

1. Budapesti Orvostudomanyi Egyesem Elettani Intezete.

\*

SPAT, A.; SALIGA, Margit; STURCZ, J.; SOLYOM, J.

Effect of aldosterone on the intestinal transport of sodium  
and potassium in rats. Acta physiol. acad. sci. Hung. 24  
no.4:465-459 '64

1. Department of Physiology, Medical University, Budapest.

SPAT, A.; STURCZ, J.; SZIGETI, R.

New observations on the function of the angiotensin-aldosterone system. Acta physiol. acad. sci. Hung. 27 no.3:199-203 '65.

1. Institute of Physiology, University Medical School, Budapest.

L 13508-66

ACC NR: AP6007038

SOURCE CODE: HU/0018/65/017/003/0248/0252

AUTHOR: Spat, Andras--Shpet, A.; Sturcz, Jozsef--Shturts, Y.; Szigeti, Robert--  
Szigeti, P.

ORG: Medical University of Budapest, Institute of Physiology (Budapesti  
Orvostudomanyi Egyetem, Elettani Intezet) *33* *B*

TITLE: Angiotensin II activating factor in rat plasma

SOURCE: Kiserletes orvostudomany, v. 17, no. 3, 1965, 248-252

TOPIC TAGS: rat, biosynthesis, biologic metabolism, gland, hormone,  
endocrinology, blood plasma, drug effect, pharmacology

ABSTRACT:

The effect of angiotensin II on the  
in vitro synthesis of steroids by the rat adrenals has been studied in Krebs-  
Ringer solution and in rat plasma. An effect of angiotensin on the increase  
of steroid synthesis could not be demonstrated in either of the incubation  
media. As compared with the Krebs-Ringer solution, rat plasma alone effected  
a significant increase in aldosterone production by the adrenals. The authors  
thank the CIBA and the Organs of the Pharmaceutical Factories for placing the  
Angiotensin II and Steroid preparations at their disposal. Orig.art has 3 figures.

SUB CODE: 06 / SUBM DATE: 29Jun64 / ORIG REF: 004 / OTH REF: 022 [JPRS]

Card 1/1 Hw

L 28993-66

ACC NR: AT6019371

SOURCE CODE: HU/2505/65/027/003/0199/0203

AUTHOR: Spat, Andras; Sturoz, Jozsef; Szigeti, RobertORG: Institute of Physiology, Medical University of Budapest (Budapesti Orvostudomanyi Egyetem, Elettani Intezet)

TITLE: New observations on the function of the angiotensin-aldosterone system

SOURCE: Academia scientiarum hungaricae. Acta physiologica, v. 27, no. 3, 1965, 199-203

TOPIC TAGS: rat, hormone, blood plasma, adrenal gland, corticosteroid, hormone

ABSTRACT: The effect of angiotensin II on steroid synthesis by the rat adrenal cortex has been studied in Krebs-Ringer medium and in rat blood plasma. Attempts to demonstrate that angiotensin would have an increasing effect on the rate of steroid synthesis failed in both media. Moreover, a depression in aldosterone and corticosterone production was observed, especially in the plasma medium. No evidence was obtained for an activation of angiotensin II by blood plasma. A significantly higher rate of steroid synthesis was achieved in the plasma medium than in the Krebs-Ringer medium. The authors are indebted to Ciba Ltd., Basel, for supplies of angiotensin II and Organon Ltd. Oss, for the steroid preparations. Orig. art. has: 2 figures. [Orig. art. in Eng.] [JPRS]

SUB CODE: 06 / SUBM DATE: 14Jul64 / ORIG REF: 003 / OTH REF: 017

Card 1/1 BLG

L 37820-66

ACC NR: AP6028457

SOURCE CODE: HU/0018/66/000/003/0258/0261  
21  
23

AUTHOR: Spat, Andras--Shpet, A.; Sturcz, Jozsef--Shturts, I.

ORG: Institute of Physiology, Medical University of Budapest (Budapesti  
Orvostudomanyi Egyetem, Elettani Intezet)

TITLE: Effect of angiotensin II on aldosterone synthesis in rat adrenals

SOURCE: Kiserletes orvostudomany, no. 3, 1966, 258-261

TOPIC TAGS: rat, adrenal gland, drug effect, biologic secretion

ABSTRACT:  
The effect of angiotensin II on surviving adrenal tissue in the rat was studied. The steroid synthesis in the adrenals was influenced neither by the administration of 50 µg/100 g daily doses of angiotensin II for 3 days before decapitation, nor by a single dose of 50 µg/100 g of it injected 40 minutes before decapitation. In comparing these results with other data, it is considered doubtful that angiotensin II plays a role in the physiological aldosterone regulation of the rat. Orig. art. has: 2 figures. [JPRS: 36,599]

SUB CODE: 06 / SUBM DATE: 10Jun65 / ORIG REF: 002 / OTH REF: 011

Card 1/1 11/21

1977 3210

HUNGARY

STURCZ, Jozsef, SPAT, Andras, and SZIGETI, Robert, Institute of Physiology, University Medical School (Orvostudomanyi Egyetem Elettani Intezete), Budapest

"Effect of Local Aldosterone Concentration on Aldosterone Production in Incubated Adrenals"

Budapest, Acta Physiologica Academiae Scientiarum Hungaricae, Vol. 30, No 2, 1966; pp 125-128.

Abstract [Article in English; authors' English summary, modified]: The feedback mechanism of aldosterone secretion was investigated by incubating rat adrenal slices in varying amounts of Krebs-Ringer solution. It was found that the rate of aldosterone synthesis was independent of the aldosterone concentration or the amount of metabolic products present in the incubation medium. Hence the stimulation of steroid synthesis by blood plasma medium cannot be attributed to the binding of aldosterone and/or metabolic product by the plasma proteins. 16 References, predominantly Western. (Manuscript received 1 Oct 65).

1/1

- 53 -

HUNGARY

SPAT, Andras, and STURCZ, Jozsef, Institute of Physiology at the Medical University (Orvostudomanyi Egyetem Elettani Intezete) in Budapest.

"The Effect of Angiotensin II on Adrenal Steroid Synthesis in the Rat"

Budapest, Acta Physiologica Academiae Scientiarum Hungaricae, Vol 29, No 3-4, 8 Jun 1966, pp 213-217.

Abstract: [English article; authors' English summary, modified] The effect of angiotensin II on steroid synthesis in the rat adrenal cortex was investigated. This drug (Hypertensin, CIBA) was practically ineffective on the rate of steroid production by incubated adrenal slices when administered in doses of 50 µg per 100 g daily for three days prior to decapitation, or in a single dose 50 µg per 100 g injected 40 minutes prior to the experiment. In view of these results and some other data, it appears unlikely that angiotensin plays a significant role in the physiological regulation of aldosterone secretion in the rat. 13 references, including 3 Hungarian, 1 German, and 9 Western. (Manuscript received 12 Jun 1965).

1/1

HUNGARY

SPAT, Andras, STURCZ, Jozsef, BANKI, Laszlo, and SZIGETI, Robert, Istitute of Physiology (Elettani Intezet) of the College of Medicine (Orvostudomanyi Egyesem), Budapest.

"Effect of Aorta Constriction on the Steroid Synthesis of Rat Adrenals"

Budapest, Kiserletes Orvostudomany, Vol 18, No 6, 1966; pp 595-599.

Abstract: The effect of the change in renal circulation on the aldosterone- and corticosterone synthesis of the surviving adrenals of rats was investigated. Through constriction of the aorta above the renal vessels the steroid synthesis is increased, while constriction below the origin of the renal vessels leads to a decrease in this synthesis. Nephrectomy eliminated the difference between the two constriction groups; hence the difference is to be attributed to one of the results of the change in renal circulation. The steroid synthesis of nephrectomized and constricted groups was higher than that of the steroid synthesis of the group constricted below the renal vessels as well as of the group which had undergone apparent operation.

15 References, mainly Western. Manuscript received 20 Dec 65.

1/1

- 29 -

SPAT, Istvan, dr.

Lichen corne and lupus vulgaris with unusual appearance in the same patient. Borgyogy. vener. szemle 11 no.2-3:123-124 Apr-June 57.

1. A Forvarosi Trefort-u. Bor - Nemibeteggondoso Intezet Kozlemenye  
(Forvos: Spat Istvan dr.)  
(LUPUS, case reports  
penis, with lichen corne of foot (Hun))  
(PENIS, dis.  
lupus, with lichen corne of foot, case report (Hun))  
(LICHEN PLANUS, case reports  
lichen corne with lupus of penis (Hun))  
(FOOT, dis.  
lichen corne with lupus of penis, case report (Hun))

POLGAR, Peter, dr.; SPAT, Istvan, dr.

The treatment of different mycoses with Fungifen. Borgyogy. vener.  
szemle 38 no.5:203-205 O '62.

1. A VIII. ker. Trefort utcai Bor-Nemibeteggondozó Intézet kozlemenye.  
(MYCOSES) (PHENOLS) (FUNGICIDES)  
(DERMATOMYCOSIS)

SPAT, Istvan, dr.

Adie's syndrome. Borgyogy. vener. szemle 40 no.2:91-92  
Ap'64.

1. A VII. Bethlen teri Bor-Nemibeteggondozo Intezet (vez.  
foorvos dr. Spat, Istvan) kozlemenye.

SPATA, B.; NEMEC, K.

"Methods for elimination of dangerous torsional vibration of high-speed diesel engines."

Czechoslovak Heavy Industry. Prague, Czechoslovakia. No. 2, 1959.

Monthly list of East European Accessions (EEAI), LC, Vol. 8, No. 6, Jun 59, Unclass

PANASHCHENKO, I.P., dots.; CHUNTULOV, V.T., dots.; POGREBINSKIY, A.P., prof.; SPATAR, N.G., dots.; LAUTA, S.P., dots.; USTINOVA, L.A., dots.; KRIVEN', P.V., prof.; FILIPPOV, V.I., dots.; GOLUBEV, V.A. , kand. ekon. nauk; DZYUBKO, I.S., dots.; GRIGOR'YEV, A.N., dots.; ZATSEPIN, V.G., dots.; TERESHCHENKO, V.F.; LOYBERG, M.Ya., kand. ist. nauk ; ORLIK, Ye.L., red.; KHOKHANOVSKAYA, T.I., tekhn. red.

[Economic history of foreign countries]Ekonomicheskaya istoriya zarubezhnykh stran; kurs lektsii. Kiev, Izd-vo Kievskogo univ. Pt.2.[From the 1870's to the present time]Ot 70-kh godov XIX v. do nastoiashchego vremeni. 1961. 387 p. (MIRA 15:11)

1. Prepodavateli kafedr politicheskoy ekonomii i istorii narodnogo khozyaystva Kiyevskogo instituta narodnogo khozyaystva (for all except Orlik, Khokhanovskaya).

(Economic history)

SPAHAREL', I.K., general-major v otstavke

Over Perekop. Vest. Vozd. Pl. 41 no. 7:68-75 J1 '58. (MIEA 11:7)  
(Russia--Revolution, 1917-1921--Personal narratives)

SPATARENKO, S.S.

On P.E.Verbev's article "Relationship between mass immunization  
and the inoculation form of epidemic hepatitis" (no.4, 1960).  
(MIRA 14:7)  
Vop.virus. 7 no.3:382 My-Je '61.  
(HEPATITIS, INFECTIOUS) (VERBEV, P.E.)

SPATARENKO, S.S.

A propos of N.B. Sarukhanov's article, "Parenteral hepatitis"  
(Zurnal mikrobiologii, epidemiologii i immunobiologii, 1960,  
No. 6). Zhur. mikrobiol., epid. i immun. 33 no.2:135 F '62. (MIRA 15:3)

1. Iz Kishinevskoy klinicheskoy infektsionnoy bol'nitsy.  
(HEPATITIS, INFECTIOUS)

SPATARU, A.

SPATARU, A. Nature data necessary for studying, on a model, maritime hydrotechnical problems. P. 403.

Vol. 3, no. 10, October 1956

REVISTA TRANSPORTURILOR

TECHNOLOGY

Bucuresti, Romania

So: East European Accession, Vol. 7, no. 3, March 1957

SPATARU, A.; CLOC, D.

Studies on a model of the entering of a river harbor. p. 415.

HIDROTEHNICA. (Asociatia Stiintifica a Inginerilor si Tehnicienilor din Romania)  
Bucuresti, Rumania. Vol. 3, No. 11/12, Nov./Dec. 1958.

Monthly List of East European Accessions (EEAI) LC VOL. 8, No. 6, June 1959.  
Uncl.

SPATARU, A.

Or. wave refraction. p.333

HIDROTEHNICA. (Asociatia Stiintifica a Inginerilor si Tehnicienilor din  
Romina) Bucuresti, Romania Vol. 4. no.11, Nov. 1959

Monthly List of East European Accessions (EEAI) LC, Vol.9, no.2, Feb. 1960

Uncl.

SPATARU, A., ing.

Construction of sea walls for landing and the beach sanding. Rev  
transport 8 no.12:528-530 D '61.

(Sea walls) (Beaches)

SPATARU, A., ing.

Action of the waves on the alluviums. Hidrotehnica 6  
no.2:46-51 F '62.

SPATARU, A., ing.

Variation of the Black Sea level on the Rumanian littoral.  
Meteorologia hidrol gosp 7 no.4:261-267 '62.

LATES, M., ing.; SPATARU, A., ing.

The January 29--February 3, 1962 tempest and its aspects in  
the Constanta area. Hidrotehnica 7 no. 6:196-201 Je '62.

SPATARU, A., ing.

The coastal band of the Razelm-Sinoe complex. Hidrotehnica 7 no.10:  
358-363 O '62.

SPATARU, A., ing.

On the forming of sea beaches by river alluvial deposits. Hidrotehnica  
8 no.2:53-57 F '63.

SPATARU, A. ing.

Calculation of deep water waves produced by the wind.  
Studii hidraul 5:157-190 '63.

Works for coast protection. 205-226

SPATARU, A., ing.

Long-term assurance of wave elements. Meteorologia  
hidrol gosp 8 no.3:128-132 '63.

SPATARU, A., ing.

Critical state of alluvium transportation under the action  
of waves. Hidrotehnica 8 no.7:245-248 JI'63.

SPATARU, A., ing.

Statistical aspects of wave actions on sediments. Hindrotehnica  
8 no.9:331-336 S '63.

RAZVAN, E.; SPATARU, A.

Study of a water supply intake for industrial water supply.  
Hidrotehnica 8 no.11:393-398 N '63.

SPATARU, A., ing.

A solution for improving the entry systems in fluvial  
harbor basins. Hidrotehnica 8 no. 4: 135-139 Ap '63.

SPATARU, Arcadie, ing.; MARCULESCU, Ion, ing.

Study on the pattern of river port basin entrances. Rev  
transport 11 no. 1: 37-42 Ja '64.

SPATARU, A.

Some features of the morphology and dynamics of the Rumanian  
coastal area of the Black Sea. Okeanologija 5 no.2:311-315 '65.  
(MIRA 18:6)

1. Nauchno-issledovatel'skiy institut gidrotekhniki Rumynskoy  
Narodnoy Respubliki.

"APPROVED FOR RELEASE: 08/23/2000

CIA-RDP86-00513R001652630012-5

Determinarea Cindililor de Functionare  
Regim Quasistacionar si Calculul Distorsionilor la Cazul Modulatiei de Frequentă  
Al. Sîntăm. Bul. Mat. Secr. Min. Mar.  
Bucureşti, 1950 pp. 247-260. În  
Romanian. "Determination of operating  
conditions in the quasi-stationary regime  
and distortion calculation for the case of  
frequency modulation".

APPROVED FOR RELEASE: 08/23/2000

CIA-RDP86-00513R001652630012-5"

SPATARU, A.

SPATARU, A. Determination of working conditions in a quasi-stationary system and the calculation of distortions in the case of frequency modulation. p. 247.

Vol. 8, no. 1, Jan./Mar. 1956

BULETIN STIINTIFIC.

SCIENCE

RUMANIA

So: East European Accession, Vol. 6, No.5, May 1957

~~SECRET~~

RUMANIA/Radio Physics - Reception of Radio Waves

I-6

Abs Jour : Ref Zhur - Fizika, No 6, 1958, No 13875

Author : Spataru A.

Inst : Not Given

Title : Method for Calculating the Distortions in a Frequency-Modulated Signal, Introduced by a Broadband Amplifier with Tank Circuit Tuned to the Same Frequency, and Also with Detuned Tank Circuits.

Orig Pub : Bul. Inst. politehn. Bucuresti, 1956, 18, No 3-4, 345-363

Abstract : No abstract

Card : 1/1

9.1706 (1127)  
AUTHOR:

TITLE:

PERIODICAL:

TEXT:

The general characteristics of directive panel antennae for radio astronomy are surveyed, as an introduction to the relays, and radio-  
 antennae for metric waves, operating at 200 Mc/s and used as a television panel antenna, and one of the other  
 operating at 55 Mc/s and used as a television panel antenna, and one of the other  
 station - designed by the Laboratorul de cercetări de televiziune - the other  
 communication - the fundamental parameters of Telecommunication Research).  
 First the characteristics of the dipole panel antennae, and the mode of dipole feeding - are analyzed in detail on the basis of the mode

30585  
R/005/60/000/002/001/002  
D272/D301

Directive panel antennae

corresponding adaptation on a large frequency band, it permits easy modification of the nominal impedance and permits good mechanical consolidation of the radiators. The antenna is dismountable and its total weight is 45 kg, measurement performed on it indicating a gain of approximately 7 db. The 53 Mc/s antenna was based on the design of the 200 Mc/s antenna, the dimensions of the construction elements being determined through multiplication by the factor 3.58. The derivation of the various parameters was made by assuming the same dipole-enter impedance and constructing the corresponding Smith diagram. Measurements have shown that the transformer impedance is 72 ohm, and it was found that the transformer can be introduced into the interior of one of the symmetric line conductors. The antenna consists of a rectangular steel frame which supports both the reflecting rods and the radiators with the respective stems; this antenna too is dismountable. The experiments performed while realizing these two antenna led to several conclusions: The radiation characteristics and the enter impedance are practically constant within a large interval of frequency variation. The mech-

Card 3/4

30585

R/005/60/000/002/001/002

D272/D301

4

Directive panel antenna

anical construction is relatively simple due to the absence of supporting insulators. Several constructive elements were found to affect strongly the impedance-frequency characteristics of the antenna, of which some, concerned with the feeding system, cannot be taken into accurate account during design; the mode of connecting the dipoles with the feed line is of special importance in this connection. It was found desirable to design the feeding and symmetrization systems with easily adjustable or replaceable elements - thus there is no need to know the exact dipole impedance, and the antenna impedance is determined experimentally by means of a line of measurement, calculating the element which is to be replaced or added for improving the adaptation. In this manner the impedance presented by the antenna can be easily modified from 60 ohms to 50 or 70 ohms. There are 14 figures and 7 references: 2 Soviet-bloc and 5 non-Soviet-bloc.

Card 4/4

SPATARU, A., prof., ing.

Some considerations on the basic problems of color television. Tele-  
communicatii 5 no.6:241-248 N-D '61.

1. Membru al Comitetului de redactie, "Telecomunicatii".

6.4400  
R/005/62/000/002/001/004  
D014/D105

AUTHOR: Spătaru, Al., Professor, Engineer

TITLE: Analytic signal, instantaneous amplitude, phase and frequency

PERIODICAL: Telecomunicații, no. 2, 1962, 41-44

TEXT: Considering that electric signals can be represented by real time functions of a summable square  $X(t)$ , the author determines the analytic signal  $Z(t)$ . Mathematically, the problem consists in determining a function  $Z(\tau)$  of a complex variable  $\tau = t + ju$ , which should be analytical in the upper half-plane, and the real part of which should be equal to  $X(t)$  on the real axis. For the determination of an analytic signal associated with a given real signal  $X(t)$ , the author mentions two methods. The analytic signal may be used for the determination of the instantaneous amplitude, the instantaneous phase and the instantaneous frequency. The signal may be localized in the frequency field by determining an average frequency, around which the energy of the signal is concentrated. The average appearance time of the signal can be determined similar to the average frequency.

B

Card 1/1